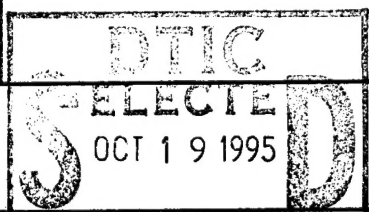


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DEPARTMENT OF PHYSICS AND ASTRONOMY
THE UNIVERSITY OF WYOMING
LARAMIE, WYOMING 82071

August 31, 1995

James G. Stobie, LTC, USAF
Attn: EPSCoR program
Air Force Office of Scientific Research
Building 410
Bolling Air Force Base, DC 20332-6448

Ref: Final Report for
EPSCoR augmentation grant No. F49620-92-J-0427.
(Parent grant No. F19628-90-K-0011)

Dear LTC Stobie:

Please find enclosed 6 copies of the Final Technical Report for
the above referenced grant.

Sincerely,



James M. Rosen
Prof. Physics & Ast.
PI

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FINAL TECHNICAL REPORT
EPSCoR AUGMENTATION GRANT NO. F49620-92-J-0427

Period covered: 1 August 1992 to 31 August 1995

Overview

This augmentation grant provided a research focus for a total of 5 graduate students who were pursuing their advanced degrees in Physics. The tasks and contributions that these students (all U.S. citizens) made to the parent grant are summarized below. Only students maintaining a satisfactory academic record were allowed to conduct laboratory research associated with this grant. All of the students made significant contributions to the parent research grant which received considerable benefit from their participation.

Student Contributions

During the first year Micheal Bjelland designed and constructed several components in a critical aerosol light scattering calibration system and then conducted preliminary field measurements.

In the second year of the augmentation grant Richard Lee adapted a global positioning system (GPS) for the balloon flight systems required in the parent grant. This work was subsequently continued and expanded by Adam Whitten who succeeded in making several aerosol measurements at ground level and in the free troposphere. Christopher Cleavelin performed an extensive analysis on much of this data as well as refined a small ozone sensor employed in the field measurements to help characterize air masses in which aerosols were sampled.

During the final year Adam continued the field measurements and was able to deploy several constant level balloons for unique observations in a fixed air mass. In addition, a new student, (Rena Faye Norby) made noteworthy advances in our calibration techniques and substantially improved our close cavity nephelometer system. At present, Adam Whitten is in the final stages of writing his Ph.D. thesis. More details of the contributions made by the student participants are included in the final report to the parent grant (Report Number PL-TR-94-2311).

This EPSCoR augmentation grant helped make it possible for the University of Wyoming to maintain the academic infrastructure of higher education in relevant disciplines and as such the support was highly appreciated.

Submitted by: James M. Rosen
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